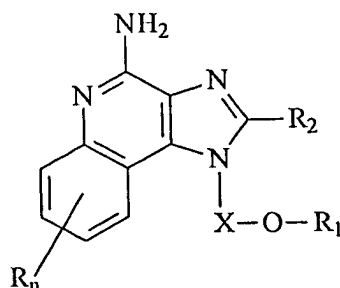


WHAT IS CLAIMED IS:

1. A compound of the formula (I):



(I)

wherein: X is $-\text{CHR}_5-$, $-\text{CHR}_5\text{-alkyl-}$, or $-\text{CHR}_5\text{-alkenyl-}$;

R_1 is selected from the group consisting of:

- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-alkyl-}$;
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-alkenyl-}$;
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-aryl-}$;
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-heteroaryl-}$;
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-heterocyclyl-}$;
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_7$;
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5-\text{R}_6\text{-alkyl-}$;
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5-\text{R}_6\text{-alkenyl-}$;
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5-\text{R}_6\text{-aryl-}$;
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5-\text{R}_6\text{-heteroaryl-}$;
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5-\text{R}_6\text{-heterocyclyl-}$; and
- $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NH}_2$;

R_2 is selected from the group consisting of:

- hydrogen;
- alkyl;
- alkenyl;

-aryl;
 -heteroaryl;
 -heterocyclyl;
 -alkyl-Y-alkyl;
 5 -alkyl-Y-alkenyl;
 -alkyl-Y-aryl; and
 -alkyl or alkenyl substituted by one or more substituents selected
 from the group consisting of:
 -OH;
 10 -halogen;
 -N(R₅)₂;
 -CO-N(R₅)₂;
 -CO-C₁₋₁₀ alkyl;
 -CO-O-C₁₋₁₀ alkyl;
 15 -N₃;
 -aryl;
 -heteroaryl;
 -heterocyclyl;
 -CO-aryl; and
 20 -CO-heteroaryl;

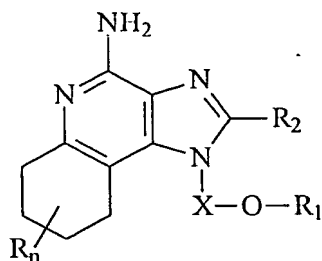
Y is -O- or -S(O)₀₋₂;
 R₃ is H, C₁₋₁₀ alkyl, or arylalkyl;
 each R₄ is independently alkyl or alkenyl, which may be interrupted by one
 25 or more -O- groups; or R₃ and R₄ can join together to form a ring;
 each R₅ is independently H, C₁₋₁₀ alkyl, or C₂₋₁₀ alkenyl;
 R₆ is a bond, alkyl, or alkenyl, which may be interrupted by one or more
 -O- groups;
 R₇ is C₁₋₁₀ alkyl; or R₃ and R₇ can join together to form a ring;
 30 n is 0 to 4; and
 each R present is independently selected from the group consisting of C₁₋₁₀
 alkyl, C₁₋₁₀ alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof.

2. A compound or salt of claim 1 wherein X is $-\text{CH}(\text{alkyl})(\text{alkyl})-$, wherein the alkyl groups can be the same or different.
- 5 3. A compound or salt of claim 1 wherein X is $-\text{CH}_2-\text{CH}_2-$.
4. A compound or salt of claim 1 wherein X is $-\text{CH}(\text{C}_2\text{H}_5)(\text{CH}_2)-$.
- 10 5. A compound or salt of claim 1 wherein R_2 is H.
6. A compound or salt of claim 1 wherein R_2 is alkyl.
7. A compound or salt of claim 1 wherein R_2 is $-\text{alkyl}-\text{O}-\text{alkyl}$.
- 15 8. A compound or salt of claim 1 wherein R_3 and R_4 join to form a heterocyclic ring.
9. A compound or salt of claim 1 wherein R_1 is $-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6-\text{aryl}$.
- 20 10. A compound selected from the group consisting of:
N-(2-{2-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)methanesulfonamide;
N-(2-{2-[4-amino-2-(2-methoxyethyl)-6,7,8,9-tetrahydro-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)methanesulfonamide;
25 *N*-(2-{2-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)-*N*-methylmethanesulfonamide;
N-(2-{2-[4-amino-2-(2-methoxyethyl)-6,7,8,9-tetrahydro-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)-*N*-methylmethanesulfonamide;
2-butyl-1-{2-[2-(1,1-dioxidoisothiazolidin-2-yl)ethoxy]ethyl}-
30 1*H*-imidazo[4,5-*c*]quinolin-4-amine; and
N-[10-(4-amino-2-methyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)-4,7-dioxadecyl]-5-dimethylaminonaphthalene-1-sulfonamide;

or a pharmaceutically acceptable salt thereof.

11. A compound of the formula (II)



(II)

wherein: X is $-\text{CHR}_5-$, $-\text{CHR}_5\text{-alkyl-}$, or $-\text{CHR}_5\text{-alkenyl-}$;

R_1 is selected from the group consisting of:

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-alkyl}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-alkenyl}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-aryl}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-heteroaryl}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-heterocyclyl}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_7$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5\text{-R}_6\text{-alkyl}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5\text{-R}_6\text{-alkenyl}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5\text{-R}_6\text{-aryl}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5\text{-R}_6\text{-heteroaryl}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5\text{-R}_6\text{-heterocyclyl}$; and

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NH}_2$;

R_2 is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;
 -alkyl-Y-alkenyl;
 -alkyl-Y-aryl; and
 -alkyl or alkenyl substituted by one or more substituents selected
 5 from the group consisting of:
 -OH;
 -halogen;
 -N(R₅)₂;
 -CO-N(R₅)₂;
 10 -CO-C₁₋₁₀ alkyl;
 -CO-O-C₁₋₁₀ alkyl;
 -N₃;
 -aryl;
 -heteroaryl;
 15 -heterocyclyl;
 -CO-aryl; and
 -CO-heteroaryl;

Y is -O- or -S(O)₀₋₂;
 20 R₃ is H, C₁₋₁₀ alkyl, or arylalkyl;
 each R₄ is independently alkyl or alkenyl, which may be interrupted by one
 or more -O- groups; or R₃ and R₄ can join together to form a ring;
 each R₅ is independently H, C₁₋₁₀ alkyl, or C₂₋₁₀ alkenyl;
 R₆ is a bond, alkyl, or alkenyl, which may be interrupted by one or more
 25 -O- groups;
 R₇ is C₁₋₁₀ alkyl; or R₃ and R₇ can join together to form a ring;
 n is 0 to 4; and
 each R present is independently selected from the group consisting of C₁₋₁₀
 alkyl, C₁₋₁₀ alkoxy, hydroxy, halogen, and trifluoromethyl;
 30 or a pharmaceutically acceptable salt thereof.

12. A compound or salt of claim 11 wherein R₂ is H or alkyl.

13. A compound or salt of claim 11 wherein R_2 is -alkyl-O-alkyl.

14. A pharmaceutical composition comprising a therapeutically effective amount of a
5 compound or salt of claim 1 and a pharmaceutically acceptable carrier.

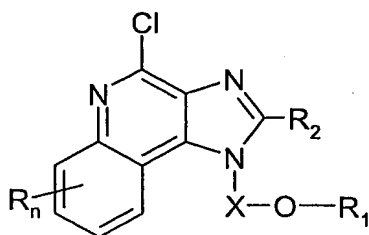
15. A method of inducing cytokine biosynthesis in an animal comprising administering
a therapeutically effective amount of a compound or salt of claim 1 to the animal.

10 16. The method of claim 15 wherein the cytokine is IFN- α .

17. A method of treating a viral disease in an animal comprising administering a
therapeutically effective amount of a compound or salt of claim 1 to the animal.

15 18. A method of treating a neoplastic disease in an animal comprising administering a
therapeutically effective amount of a compound or salt of claim 1 to the animal.

19. A compound of the formula (III):



(III)

wherein X is -CHR₅-, -CHR₅-alkyl-, or -CHR₅-alkenyl-;

25 R_1 is selected from the group consisting of:

-R₄-NR₃-SO₂-R₆-alkyl;

-R₄-NR₃-SO₂-R₆-alkenyl;

-R₄-NR₃-SO₂-R₆-aryl;

-R₄-NR₃-SO₂-R₆-heteroaryl;
 -R₄-NR₃-SO₂-R₆-heterocyclyl;
 -R₄-NR₃-SO₂-R₇;
 -R₄-NR₃-SO₂-NR₅-R₆-alkyl;
 5 -R₄-NR₃-SO₂-NR₅-R₆-alkenyl;
 -R₄-NR₃-SO₂-NR₅-R₆-aryl;
 -R₄-NR₃-SO₂-NR₅-R₆-heteroaryl;
 -R₄-NR₃-SO₂-NR₅-R₆-heterocyclyl; and
 -R₄-NR₃-SO₂-NH₂;

10 **R₂** is selected from the group consisting of:

-hydrogen;
 -alkyl;
 -alkenyl;
 -aryl;
 15 -heteroaryl;
 -heterocyclyl;
 -alkyl-Y-alkyl;
 -alkyl-Y-alkenyl;
 -alkyl-Y-aryl; and

20 - alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;
 -halogen;
 -N(R₅)₂;
 25 -CO-N(R₅)₂;
 -CO-C₁₋₁₀ alkyl;
 -CO-O-C₁₋₁₀ alkyl;
 -N₃;
 -aryl;
 30 -heteroaryl;
 -heterocyclyl;
 -CO-aryl; and

-CO-heteroaryl;

Y is -O- or -S(O)₀₋₂;

R₃ is H, C₁₋₁₀ alkyl, or arylalkyl;

each R₄ is independently alkyl or alkenyl, which may be interrupted by one or more -O- groups; or R₄ and R₃ can join to form a ring;

each R₅ is independently H, C₁₋₁₀ alkyl, or C₂₋₁₀ alkenyl;

R₆ is a bond, or is alkyl or alkenyl, which may be interrupted by one or more -O- groups;

R₇ is C₁₋₁₀ alkyl; or R₃ and R₇ can join together to form a ring;

n is 0 to 4; and

each R present is independently selected from the group consisting of C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

20. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 11 and a pharmaceutically acceptable carrier.

21. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 11 to the animal.

22. The method of claim 21 wherein the cytokine is IFN- α .

23. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 11 to the animal.

24. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 11 to the animal.